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HARDWARE SURVEY FOR THE AVIONICS TEST BED

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Prepared By

Lockheed Engineering and Management Services Company, Inc.

Houston, Texas

Contract NAS 9-15800

For

AVIONICS SYSTEMS DIVISION

JUL 7 1981

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HARDWARE SURVEY FOR THE AVIONICS TEST BED

Job Order 32-429

PREPARED BY

APPROVED BY

L. H. Harris, Job Order Manager Power and Data Systems Engineering Section

Prepared By

Lockheed Engineering and Management Services Company, Inc.

For

Avionics Systems Division Engineering and Development Directorate

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION LYNDON B. JOHNSON SPACE CENTER HOUSTON, TEXAS

June 1981

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16. Abstract

A survey of major hardware items that could possibly be used in the development of an Avionics Test Bed for Shuttle attached or autonomous large space structures was conducted a NASA JSC building 16. The results of the survey were organized to show the hardware of laboratory usage. Computer systems were emphasized by detailing each one on a standard form and placing the forms in appendices.

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1. INTRODUCTION

A large space structures (LSS) avionics test bed (ATB) has been proposed for development at NASA JSC in building 16. The ATB will be used in the development of Shuttle attached or autonomous large space structures such as the proposed Space Operations Center (SOC). A comprehensive survey of hardware and computer software presently available in building 16 was required for the generation of an ATB development plan. The survey in this report covers the hardware in NASA JSC building 16 which could possibly be useful in the development of the ATB.

The survey is organized to show the hardware by laboratories. Most of the hardware in building 16 supports the Shuttle Avionics Integration Laboratory (SAIL); however, this hardware is contained in individual laboratories which, taken as a whole, make up the SAIL. In some cases, individual elements of SAIL are identified as Simulations which may contain more than one laboratory. These elements are fully identified down to the laboratory level. The hardware in building 16 which is not a part of SAIL is contained in identifiable working laboratories and is described in that manner.

Since computer systems are versatile tools which may be reconfigured to do different or additional tasks, they are listed separately for each laboratory on a special form. The computer systems as listed can only be assumed correct at the time of the survey. Changing laboratory requirements may cause equipment to be moved to different systems within the laboratory and, in some cases, to systems in another laboratory. This survey does not address the availability of this hardware for use in the ATB.

2. DATA SYSTEMS LABORATORY

The Data Systems Laboratory is used for the following functions:

- Investigation of Shuttle avionics systems problems
- Development and evaluation of breadboard hardware for Shuttle enhancements
- Support for SAIL testing

The major hardware elements in the Data Systems Laboratory are the ten (10) computer systems detailed on pages A-1 through A-10.

3. POWER DISTRIBUTION AND CONTROL LABORATORY (PDCL)

The PDCL is used to support tests involving the Shuttle Electrical Power Distribution and Control (EPDC) system and tests involving other spacecraft power systems such as the Power Extension Package (PEP). The PDCL supports the following test functions:

- Development testing
- Anomaly investigations
- Evaluation of proposed EPDC modifications
- Verification of engineering and mathematical calculations

The primary hardware elements in the PDCL are the Shuttle EPDC breadboard and the two computer systems detailed on pages A-11 and A-12.

4. INERTIAL SYSTEMS LABORATORY

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The Inertial Systems Laboratory is used to support evaluations and tests involving spacecraft Inertial Measurement Units (IMUs), Star Trackers, and Rate Gyro Assemblies (RGAs). In addition to subsystem tests, this laboratory supports the system tests performed with the Shuttle Test Station (STS) in the SAIL. The primary hardware elements in the Inertial Systems Laboratory are the 3-axis Dynamics Motion Simulator (DMS), a 2-axis rate table, and the five computer systems detailed on pages A-13 through A-17.

5. INERTIAL COMPONENTS LABORATORY

The Inertial Components Laboratory is used to evaluate spacecraft inertial components. Its major hardware elements are three rate tables, three dividing heads, and a computer system detailed on page A-18.

6. FLIGHT CONTROLS LABORATORY

The Flight Controls Laboratory is used to evaluate spacecraft flight control hardware such as electromechanical actuators and Orbital Maneuvering System (OMS) actuators. The primary hardware element in this laboratory is the computer system detailed on page A-19.

7. SHUTTLE AVIONICS INTEGRATION LABORATORY (SAIL)

The SAIL is composed of three major systems - two Test Stations and their supporting laboratories and a Shuttle Engineering Simulator (SES). The two test stations are the Shuttle Test Station (STS) and the Guidance, Navigation and Control Test Station (GTS). Each of these Test Stations have dedicated support laboratories and share the use of some laboratories. The SES will be considered as one laboratory even though its equipment is located in two noncontiguous rooms and it shares a computer system with another laboratory in another room.

7.1 SHUTTLE TEST STATION (STS)

The STS contains the following hardware:

- A mockup of the fore and aft flight deck cockpit
- Qualifiable Shuttle avionics hardware
- Selected Shuttle avionics and non-avionics line replaceable units based on providing complete interface with flight software, flight deck display and control, and selected Launch Processing System application software
- A representative mockup of the Shuttle avionics bay and payload pay
- A Shuttle flight type wiring harness
- A standard payload interface
- SAIL Aerosurface Actuator Simulator (SAAS)
- Navigational Aids Test Set (NTS)

The laboratories listed below are used by the STS to support tests. All the laboratories are part of SAIL.

- Test Operation Center (TOC)
- Marshall Mated Element Simulator (MMES)
- Launch Processing System (LPS)

- Shuttle Avionics Test System (SATS)
- Payload Acceptance Test Station (PATS)
- Verification Test Station (VTS)
- Quick Look Station (QLS)
- Applications Verification Laboratory (AVL)
- Shuttle Dynamics Simulator (SDS)
- Electronic Visual Display (EVD)
- Software Development Laboratory

7.1.1 TEST OPERATIONS CENTER (TOC)

The Test Operations Center supports testing with the Shuttle Test Station. It provides such functions as test control, test interface control, data display and storage, and fault insertion. The TOC centains the following harcware:

- Video data monitors
- Close circuit television monitors
- Analog recorders
- Control stations concaining four META 4 computer systems

7.1.2 MARSHALL MATED ELEMENTS SIMULATOR (MMES)

The MMES is used to support tests with the Shuttle Test Station and the Guidance, Navigation and Control Test Station. The MMES provides simulations of the Shuttle main engines, the Shuttle solid rocket booster (SRB) engines, the thrust vector control actuators, and other Shuttle hardware functions. The primary handware element in the MMES is the XEROX 560 computer system detailed on page B-1. Other hardware elements include a test control console and a signal conditioning unit.

7.1.3 LAUNCH PROCESSING SYSTEM (LPS)

The LPS laboratory is used to support tests with the Shuttle Test Station and the Guidance, Navigation and Control Test Station. The LPS provides data recording, data display, and test control functions. The primary hardware in the LPS is six video monitor/control stations and the seven supporting computer systems detailed on pages B-2 through B-8.

7.1.4 SHUTTLE AVIONICS TEST SYSTEM (SATS)

The SATS is used to support tests with the Shuttle Test Station and the Guidance, Navigation and Control Test Station. It provides data recording and data reduction functions. The primary hardware elements in the SATS are the Data General NOVA 840 and the Data General Eclipse C350 computer systems detailed on pages B-9 and B-10.

7.1.5 PAYLOAD ACCEPTANCE TEST STATION (PATS)

The PATS supports testing with the Shuttle Test Station. The PATS can simulate the Shuttle flight system for testing payloads and payload interfaces, or it can simulate the payload interfaces to support flight system tests. The primary hardware element in the PATS is the SEL 32/75 computer system detailed on page B-11.

7.1.6 VERIFICATION TEST STATION (VTS)

The VTS is used for real time recording and near real time display of user selected SAIL downlist, simulation, and flight system parameters after a preselected event during a SAIL test sequence with the STS or GTS. Data may also be dumped on a printer immediately after capture to give test personnel a quick look at test parameters. The major hardware item in the VTS is the computer system detailed on page B-12.

7.1.7 QUICK LOOK STATION (QLS)

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The Quick Look Station is used for non-real time SAIL activities such as maintenance of the SAIL data base for TOC, data reduction of data recorded

in other SAIL laboratories, Configuration Management Office (CMO) records and activities, and logic card wire list generation. The major hardware element in the QLS is the computer configuration detailed on page B-13.

7.1.8 APPLICATIONS VERIFICATION LABORATORY (AVL)

The AVL is used to develop system software for the Test Operations Center (TOC) and as a test bed to check out TOC META 4 computer system components. Major hardware elements in the AVL are a Display and Control Module (DCM), an Acquisition and Command Module (ACM) and the META 4 computer system detailed on page 8-14.

7.1.9 SHUTTLE DYNAMICS SIMULATOR (SDS)

The Shuttle Dynamics Simulator is used to support testing with the Shuttle test Station. This simulator contains three laboratories - the Vehicle Dynamics Simulation (VDS), the Simulator Recorder Subsystem (SRS), and the Simulator Interface Subsystem (SIS). These laboratories will be described individually. In addition to these three laboratories, the SDS contains an RCS/OHMS Simulator (ROS) and an MMES Buffer, and it receives test support from the Electronic Visual Display (EVD) laboratory and the Software Development Laboratory. The EVD and Software Development Laboratory will be described as separate SAIL laboratories.

7.1.9.1 Vehicle Dynamics Simulation (VDS)

The VDS laboratory provides simulations of Shuttle aerodynamics, flight dynamics, sensors, navigational aids, IMUs, propulsive forces, moments, and remote manipulator systems. The major hardware elements in the VDS laboratory are the five computer systems detailed on pages B-15 through B-19.

7.1.9.2 Simulator Recorder Subsystem (SRS)

The SRS provides a real time magnetic tape recording capability for recording data from the VDS, SIS, and other SAIL/STS elements. The major hardware element in the SRS is the computer system detailed on page 8-20.

7.1.9.3 Simulation Interface Subsystem (SIS)

The SIS provides the interface hardware between the Shuttle Test Station and the VDS and SRS. Its major hardware elements include the Signal Conditioning System, the Converter System, the Test and Monitor Unit, the Buffer Amplifier and Trunking System, and the Raytheon R704 computer system detailed on page 8-21.

7.1.10 ELECTRONIC VISUAL DISPLAY (EVD)

The EVD laboratory supplies simulated out-the-window scenes and CCTV scenes in color for all three of the major SAIL systems - STS, GTS, and SES. In addition, it contains a graphics system with an electronic tablet for graphics projects. Its major hardware elements are an Evans and Sutherland Scene Generator, a General Electric Scene Generator, and five computer systems which are detailed on pages B-22 through B-26.

7.1.11 SOFTWARE DEVELOPMENT LABORATORY

The Software Development Laboratory is used by personnel in SDS, GDS, and SES to develop applications programs for the computers in those areas. The major hardware elements in the laboratory are the two computer systems detailed on pages B-27 and B-28, and two Intel microprocessor development systems (MDS 800 and MDS 230).

7.2 GUIDANCE, NAVIGATION AND CONTROL TEST STATION (GTS)

The GTS contains the following hardware:

- A mockup of the Shuttle forward cockpit
- Qualifiable/prototype Shuttle avionics hardware
- Selected Shuttle avionics and non-avionics line replaceable units to provide interface with flight software and flight deck display and control for Guidance, Navigation and Control functions
- Non-flight wire harness and LRU mounting racks

The laboratories listed below are used by the GTS to support tests. All the laboratories are part of SAIL. Four of the laboratories are used by more than one major SAIL system and have been described in paragraph 7.1. The GTS Dynamics Simulator is dedicated to the GTS and is described in the following paragraphs. These laboratories support GTS testing:

- Marshall Mated Element Simulator (MMES)
- Launch Processing System (LPS)
- Shuttle Avionics Test Set (SATS)
- Electronics Visual Display (EVD)
- GTS Dynamics Simulator (GDS)

7.2.1 GTS DYNAMICS SIMULATOR (GDS)

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The GDS is used to support testing with the Guidance, Navigation and Control Test Station. This simulator contains three laboratories - the Flight Dynamics Simulation (FDS), the GTS Recording Device (GRD), and the GTS Simulation Interface (GSI). These Taboratories will be described individually in the following paragraphs. In addition to these three laboratories, the GDS contains an RCS/OHMS Simulator (ROS), an MMES Buffer, and a Non-Avionics Simulator detailed on page B-29, and it receives support from the Electronic Visual Display (EVD) laboratory. The EVD was described in paragraph 7.1.10.

7.2.1.1 Flight Dynamics Simulation (FDS)

The FDS laboratory provides simulations of Shuttle aerodynamics, flight dynamics, sensors, navigational aids, IMUs, propulsive forces, moments, and remote manipulator systems. The major hardware elements in the FDS laboratory are the five computer systems detailed on pages B-30 through B-34.

7.2.1.2 GTS Recording Device (GRD) 5

The GRD provides a real time magnetic tape recording capability for recording data from the FDS, GSI, and other SAIL/GTS elements. The major hardware element in the GRD is the computer system detailed on page B-35.

7.2.1.3 GTS Simulation Interface (GSI)

The GSI provides the interface hardware between the Guidance, Navigation and Control Test Station and the FDS and GRD. Its major hardware elements include the Signal Conditioning System, the Converter System, the Test and Monitor Unit, the Buffer Amplifier and Trunking System, and the Raytheon 704 computer system detailed on page B-36.

7.3 SHUTTLE ENGINEERING SIMULATOR (SES)

The Shuttle Engineering Simulator provides the capability of performing Shuttle engineering simulations without any flight type hardware. There are mockups of the forward and aft cockpit crew stations for use in the simulations; however, none of the hardware is flight type hardware. In addition to the cockpits, the major hardware elements are the SES Cockpit Interface (SCI) and the 12 computer systems detailed on pages 8-37 through 8-48. The SES uses the EVD laboratory described in paragraph 7.1.10 for out-the-window scenes and CCTV displays.

APPENDIX A COMPUTER SYSTEMS

Computer Manufacturer:	SEL		Model:	SEL 32/55
System Laboratory Use:	Data Syste	ems	NASA Branch:	EH4
MAIN MEMORY:				
Word Size: 32	Bits			
Memory Capacity: 128K		Words	;	
Cycle Time: 0.6		 _Microsecond	S	
MASS MEMORY:				
Magnetic Tape: 2 ea.	9T 751PS	units at	800	bpi
	units at		bpi	
Hard Disk Capacity:	3 ea.	10M b	ytes	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16A	, Roo	om 2012		
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s): 1	ea.	600	LPM	
Card Reader: 1			СРМ	
Cará Punch:				
CRT Terminals:			Units	
Graphic Terminals:			Units	
Color Graphic Terminals	: <u>1 ea. R</u> /	AMTEK 6200R	Units	
SPECIAL H/W ARITHMETIC:	.			
Mul/Div:	(Firmware)		
		·		
Array Processor:				
ADDITIONAL PERIPHERALS:				
Silent 700 Printer/Key		5 Teletyne		
		<u> </u>		
AVAILABLE SOFTWARE:		•		
Operating Systems(s) De	escription:	SFI Real T	ime Monitor 7 1	
oper world off seems (3) of		JEE NEGI I	TING FIGHT GUT / 1	
Compilers/Languages:	Fortran. Ba	asic		
, , , , , , , , , , , , , , , , , , , ,				
Application S/W: Cros	s assemblers	s for 6800, 6	8000, 8085, 650	2 and 9900
microprocessors; autom				

Computer Manufacturer:	Data General	Model:	NOVA 4
System Laboratory Use:	Data Systems	NASA Branch:	EH4
MAIN MEMORY: Word Size: 16 Memory Capacity: Cycle Time: 0.4	128K Words	Is	
MASS MEMORY: Magnetic Tape: 2 ea. 9 1 ea. CT 75IPS Hard Disk Capacity: Floppy Disk: 2 ea. LOCATION OF COMPUTER: Building 16A	units at <u>800/1600</u> 2 ea. <u>10M</u> b 8 inch units	bpi oytes	bpi
Network Interface Type:			
GENERAL PERIPHERALS: Line Printer(s): 1 c Card Reader: 1 c Card Punch: CRT Terminals: 2 c Graphic Terminals: 2 c Color Graphic Terminals SPECIAL H/W ARITHMETIC: Mul/Div: Floating Point: Array Processor: ADDITIONAL PERIPHERALS: 2 ea. 4002A graphic terminals	ea. 600 ea. (See below) :	CPM Units Units Units	
AVAILABLE SOFTWARE: Operating Systems(s) De			
Compilers/Languages:	Fortran IV, Fortran V,	Algol 68, Basic	
Application S/W: Cros	ss assemblers for 8000 s	series Intel mic	roprocessors.

. A-2

Computer Manufacturer:	Data General	Model: NOV	A 1200
System Laboratory Use:	Data Systems	NASA Branch:	EH4
MAIN MEMORY:			
Word Size: 16	Bits		
Memory Capacity:			
-	.2 Microseconds		
MASS MEMORY:			
	T 75IPS units at	800/1600	bpi
	units at		•
	ea. 5M byt		
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16A	, Room 2012		
Network Interface Type:	· · · · · · · · · · · · · · · · · · ·		
GENERAL PERIPHERALS:			
Line Printer(s): 1 e	a. 300 L	.PM	
Card Reader: 1 e	a. 300 C	PM	
Card Punch:			
CRT Terminals: 1 e	aU	Inits	
Graphic Terminals:	<u></u> U	Inits	
Color Graphic Terminals:	· (Inits	
SPECIAL H/W ARITHMETIC:			
Mu1/Div:	Yes		
Floating Point:	Yes		
Array Processor:	No		
ADDITIONAL PERIPHERALS:			
Paper tape reader/punch	, triple cassette unit,	touch terminal	
		·	
AVAILABLE SOFTWARE:			
Operating Systems(s) Des	scription:	•	
	·		
Compilers/Languages: Fo	ortran IV, Basic		
A 11 A1 W 5 B1			
Application S/W:			

Computer Manufacturer:	Data General	Model:	NOVA 1200
System Laboratory Use:	Data Systems	NASA Branch:	EH4
MAIN MEMORY:		•	
Word Size: 16	Bits		
Memory Capacity: 32	2K Words		
Cycle Time:	1.2 Microsecond	S	
MASS MEMORY:			
Magnetic Tape:	units at		bpi
	units at	bpi	
Hard Disk Capacity:	b	ytes	
Floppy Disk: 2 ea	ı. units		
LOCATION OF COMPUTER:			
Building 16A	, Room2012	2	
Network Interface Type:	-		
GENERAL PERIPHERALS:	:		
Line Printer(s):	· 	LPM	
Card Reader:		CPM	
Card Punch:		•	
CRT Terminals:		Units	
Graphic Terminals:		Units	
Color Graphic Terminals	:	Units	
SPECIAL H/W ARITHMETIC:			
Mul/Div:	Yes		
Floating Point:	Yes		
Array Processor:	No		
ADDITIONAL PERIPHERALS:			
AVAILABLE SOFTWARE:			
	scription:	•	
Compilers/Languages:	Fortran IV, Basic		
Application S/W:			

Computer Manufacturer: <u>Data Gener</u>	Model: <u>NOVA 1200</u>
System Laboratory Use: <u>Data Syste</u>	ns NASA Branch: <u>EH4</u>
MAIN MEMORY:	
Word Size: 16 Bits	•
Memory Capacity: 28K Wo	rds
Cycle Time: 1.2 Mi	croseconds .
MASS MEMORY:	
Magnetic Tape:	units atbpi
units at	bpi
Hard Disk Capacity:	bytes
Floppy Disk:	units
LOCATION OF COMPUTER:	
Building 16A , Room	2012
Network Interface Type:	
GENERAL PERIPHERALS:	
Line Printer(s):	LPM
Card Reader:	
Card Punch:	
CRT Terminals:	
Graphic Terminals:	Units
Color Graphic Terminals:	Units
SPECIAL H/W ARITHMETIC:	
Mul/Div: Yes	
Floating Point: No	
Array Processor: No	
ADDITIONAL PERIPHERALS:	
Teletype	
AVAILABLE SOFTWARE;	
Operating Systems(s) Description:	
Compilers/Languages: Fortran IV, B	asic
Application S/W:	

Computer Manufacturer:	Data General	Model:	NOVA 1200
System Laboratory Use:	Data Systems	NASA Branch:	EH4
MAIN MEMORY:		•	
Word Stze: 16	Bits		
Memory Capacity:	32K Words		
Cycle Time:	1.2 Microsecon	ds	
MASS MEMORY:			
Magnetic Tape:	units at		bpi
	units at	bpi	
Hard Disk Capacity:		oytes	
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16A	, Room201	2	
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):	••	_ LPM	
		CPM	
	••	_	
CRT Terminals:	••	_ Units	
Graphic Terminals:	••	_ Units	
Color Graphic Terminals	s:	_ Units	
SPECIAL H/W ARITHMETIC	•		
Mul/Div:	••		
Floating Point:	- •		
Array Processor:	••		
ADDITIONAL PERIPHERALS:	:		
Paper tape punch, pape			
AVAILABLE SOFTWARE:	- 		
	escription:		
Compilers/Languages:	Fortran IV, Basic		
Application S/W:			

Computer Manufacture	er: Data Gen	eral 1	Model:	NOVA 1200
System Laboratory Us	se: Data Sys	tems N	ASA Branch:	EH4
MAIN MEMORY:				
Word Size: 1	.6 Bits			
Memory Capacity:		lords		
Cycle Time:				
MASS MEMORY:				
Magnetic Tape:	••	_units at		bp1
	units at		pi	
Hard Disk Capacity:		bytes		
Floppy Disk:				
LOCATION OF COMPUTER	₹:			
Building 16A	_	2012		
Network Interface Ty				
GENERAL PERIPHERALS	•			
Line Printer(s):		LPM		
Card Reader:		CPM		
Card Punch:				
CRT Terminals:		Uni	ts	
Graphic Terminals:		Uni	ts	
Color Graphic Termin	nals:	Uni	ts	
SPECIAL H/W ARITHMET	TIC:			
Mul/Div:	Yes			
Floating Point:				
Array Processor:	No			
ADDITIONAL PERIPHERA	ALS:			
AVAILABLE SOFTWARE:			-	
Operating Systems(s)) Description:			
	· · · · · · · · · · · · · · · · · · ·			
Compilers/Languages:	Fortran IV,	Basic		
Application S/W:				

Computer Manufacturer:	Data General	Model:	NOVA 1200
System Laboratory Use:	Data Systems	NASA Branch:	EH4
MAIN MEMORY:			
Word Size: 16	Bits		
Memory Capacity:	16K Words		
Cycle Time:	1.2 Microsecond	S	
MASS MEMORY:			
Magnetic Tape:	units at		bp1
	inits at	bpi	
		ytes	
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16A	, Room2012		
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):		LPM	
Card Reader:		CPM	
Card Punch:			
CRT Terminals:		Units	
Graphic Terminals:	••	Units	
Color Graphic Terminals:	•	Units	
SPECIAL H/W ARITHMETIC:			
Mul/Div:	••		
Floating Point:	••		
Array Processor:		·	
ADDITIONAL PERIPHERALS:			
AVAILABLE SOFTWARE:			
Operating Systems(s) Des	scription:		
Compilers/Languages: F	ortran IV, Basic		
Application S/W:			

Computer Manufacturer:	Data General	Model:	NOVA 1200
System Laboratory Use:	Data Systems	NASA Branch:	EH4
MAIN MEMORY: Word Size: 16	Bits		
Memory Capacity:	Words		
Cycle Time:	1.2 Microsecond	s	
MASS MEMORY:		•	
Magnetic Tape:	units at		bpi
	ınits at	bpi	
Hard Disk Capacity:	b	ytes	
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16A	, Room 2012		
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):	• •	LPM	
Card Reader:	* #	CPM	
Card Punch:			
CRT Terminals:	·-	Units	
Graphic Terminals:		Units	
Color Graphic Terminals:	• •	Units	
SPECIAL H/W ARITHMETIC:			
Mul/Div:			
Floating Point:			
Array Processor:			
ADDITIONAL PERIPHERALS:			
ANATI ADI E COSTUADE			····
AVAILABLE SOFTWARE:			
Operating Systems(s) Des	cription:		
Compilers/Languages:	Fortran IV, Basic		
	•		
Application S/W:			

Computer Manufacturer:	Data Genera	11	Model:	NOVA 1200
System Laboratory Use:	Data System	ns	NASA Branch:	EH4
MAIN MEMORY:				
	16 Bits			
	12K W	ords		
		icroseconds		
MASS MEMORY:				
Magnetic Tape:		units at		bpi
	units at		_bpi	
Hard Disk Capacity:		byte	es	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16A	, Room	2012		1
Network Interface Type:				
GENERAL PERIPHERALS:	r.			
Line Printer(s):		LI	PM	
Card Reader:		CI	PM	
Card Punch:				
CRT Terminals:		Uı	nits	
Graphic Terminals:	**	Ui	nits	
Color Graphic Terminals	:	Ui	nits	
SPECIAL H/W ARITHMETIC:				
Mul/Div:				
Floating Point:				
Array Processor:				
ADDITIONAL PERIPHERALS:				
AVAILABLE SOFTWARE:				
Operating Systems(s) De	scription:			
Compilers/Languages:	Fortran IV. B	asic		
			- 1 <u>- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1</u>	
Application S/W:				_

Computer Manufacturer:	Data General	Model:	NOVA 4
System Laboratory Use:	EPDC	NASA Branch:	EH5
MAIN MEMORY:			
	16 Bits		
Memory Capacity:	The state of the s		
	0.4 Microsecond	s _.	
MASS MEMORY:			
	ea. 9T 75IPS units at	800	bpi
	units at		
Hard Disk Capacity:			
Floppy Disk:	1 ea. units		
LOCATION OF COMPUTER:			
Building 16	, Room185		
Network Interface Type	• •		
GENERAL PERIPHERALS:			
Line Printer(s):	600	LPM	
Card Reader:	600	CPM	
	**		
CRT Terminals:	3 ea	Units	
Graphic Terminals:	1 ea.	Units	
Color Graphic Terminal	s:	Units	
SPECIAL H/W ARITHMETIC	•		
Mul/Div:	Yes		
Floating Point:	Yes		
Array Processor:			
ADDITIONAL PERIPHERALS	•		
Terminal/Printer, ULMS	•		
AVAILABLE SOFTWARE:			
Operating Systems(s) Do	escription: MRDOS	·	
Compilers/Languages:	Fortran IV, Fortran V,	Algol 68, Basic	
	raphics Plotting System,	Laboratory Data	Monitor and
Acquisition System			

Computer Manufacturer:	WANG		Model:	2200T-8
System Laboratory Use:	EPDC		_ NASA Branch:	EH5
MAIN MEMORY:				
	24 Bits			
Memory Capacity:	32K	Words		
Cycle Time:	6.0	Microseconds		
MASS MEMORY:	i			
Magnetic Tape:		units at _		bpi
	units at _		bpi	
Hard Disk Capacity:			tes	
Floppy Disk:	1 ea.	units		
LOCATION OF COMPUTER:				
Building 16	, Roc	om <u>184</u>		
Network Interface Type:			in all the great program is the first part of th	
GENERAL PERIPHERALS:				
Line Printer(s):		90	LPM	
Card Reader:	•	_	CPM	
Cand Bunch:	-	-		
CRT Terminals:	1	ea.	Units	
Graphic Terminals:			Units	
Color Graphic Terminals	s:	·	Units	
SPECIAL H/W ARITHMETIC	•			
Mul/Div:		-		
Floating Point:		-		
Array Processor:		-	Therefore, and the	
ADDITIONAL PERIPHERALS	•			
Data Acquisition Syste	m, Drum Plo	tter ·		
AVAILABLE SOFTWARE:				
Operating Systems(s) De	escription:		·	
Compilers/Languages:	Basic			
				
Application S/W:D	ata Acquisi	tion Operating	Program	

Computer Manufacturer:	Hewlett Packard			:l:	HP 21MX
System Laboratory Use:	Inertial Sy	/stems Lab	NASA	Branch:	EH6
MAIN MEMORY:					
**************************************	16 Bits				
Memory Capacity:	32K	_Words			
Cycle Time:	1.2	_ _Microsecond	S		
MASS MEMORY:					
Magnetic Tape: 1	ea. 9T	units at	(800	bpi
	units at		bpi		
Hard Disk Capacity: _	5M	b.			
Floppy Disk:	<u> </u>	units			
LOCATION OF COMPUTER:					•
Building 16	, Roo	m 105	54		
Network Interface Type:				·	
GENERAL PERIPHERALS:					
Line Printer(s):			LPM		
Card Reader:		• 	CPM		
Card Punch:					
CRT Terminals:		ea.	Units		
Graphic Terminals:			Units		
Color Graphic Terminals	·	·	Units		
SPECIAL H/W ARITHMETIC:					
Mul/Div:	Ye	es			
Floating Point:	Ye	2\$			
Array Processor:	No.)			
ADDITIONAL PERIPHERALS:					
HP 2635 Printer/Termin	al				
AVAILABLE SOFTWARE:					
Operating Systems(s) De	scription:	RTE II			
	<u> </u>	*			
Compilers/Languages: _	Fortran, Ba	asic			
PA44	U C-121				
Application S/W:IM	U Calibratio	on			

Computer Manufacturer:	Hewlett Packard	Model:	HP 21MX
System Laboratory Use:	Inertial Systems L	ab NASA Branch:	EH6
MAIN MEMORY:			
Word Size:	<u> 16</u> Bits		
Memory Capacity:	32K Words		
Cycle Time:	1.2 Microseco	nds	
MASS MEMORY:	•		
Magnetic Tape:	1 ea. 9T units a	t 800	bpi
	units at	bpi	
	5M		
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16	, Room16	054	
Network Interface Type			
GENERAL PERIPHERALS:	•		
Line Printer(s):		LPM	
Card Reader:	••	CPM	
.			
CRT Terminals:		Units	
Graphic Terminals:		Units	
Color Graphic Terminal	s:	Units	
SPECIAL H/W ARITHMETIC	•		
Mul/Div:	Yes		
Floating Point:	Yes		
Array Processor:	No		
ADDITIONAL PERIPHERALS	:		
	2635 Terminal/Printer	<u> </u>	
AVAILABLE SOFTWARE:			
Operating Systems(s) De	escription: RTE II	· 	
Compilers/Languages:	Fortran, Basic		
Application S/W:	IMU Calibration		
			

Computer Manufacturer:	<u> Hewlett Pack</u>	card	Model:	HP 2100
System Laboratory Use:		stems Lab	NASA Branch:	ЕН6
MAIN MEMORY:				
Word Size:	16 Bits			
Memory Capacity:	32K Wo	rds		
Cycle Time:		croseconds		
MASS MEMORY:				
Magnetic Tape:		units at		bpi
****	units at	1	opi	
Hard Disk Capacity:	2.5M	bytes	5	
Floppy Disk:				
LOCATION OF COMPUTER:				
Building 16	, Room _	1054		
Network Interface Type				
GENERAL PERIPHERALS:				
Line Printer(s):	1 ea.	LP!	4	
Card Reader:		CP!	4	
Cound Dumaha				
CRT Terminals:	1 ea.	Un	its	
Graphic Terminals:		Un	its	
Color Graphic Terminal	s: <u></u>	Un	its	
SPECIAL H/W ARITHMETIC	:		•	
Mul/Div:	Yes			
Floating Point:	Yes			
Array Processor:	No			
ADDITIONAL PERIPHERALS				
Paper Tape Reader, Pa	aper Tape Punch,	Teletype		
AVAILABLE SOFTWARE:				
Operating Systems(s) D	escription:f	RTE II	·	· · · · · · · · · · · · · · · · · · ·
	Fameura Dardi	 		
Compilers/Languages:	Fortran, Basic			
Application S/W:	IMU Calibratio	on .		
The tracion of a.				

Computer Manufacturer:	Hewlett Packard		Model:	HP 2100	
System Laboratory Use:	Inertial	Systems Lab	NASA Branch:	EH6	
MAIN MEMORY:					
Word Size:	16 Bits				
Memory Capacity:		Words			
Cycle Time:		·· ·	s		
MASS MEMORY:					
Magnetic Tape:	*-	units at		bpi	
	units at _		bpi		
Hard Disk Capacity:	2	.5M b	ytes		
Floppy Disk:		units			
LOCATION OF COMPUTER:					
Building 16	, Ro	om 1054	<u> </u>		
Network Interface Type:	•				
GENERAL PERIPHERALS:			•		
Line Printer(s):	1	ea.	LPM		
Card Reader:		-	CPM		
Canad Dunaha		-			
CRT Terminals:		ea.	Units		
Graphic Terminals:		-	Units		
Color Graphic Terminals	S:		Units		
SPECIAL H/W ARITHMETIC:	:				
Mul/Div:		Yes			
Floating Point:		Yes			
Array Processor:		No			
ADDITIONAL PERIPHERALS:					
Paper Tape Reader, Pa		nch, Teletype	!		
AVAILABLE SOFTWARE:					
Operating Systems(s) De	escription:	RTE II	•		
J = 0 = = = = = (5)					
Compilers/Languages:	Fortran, B	asic			
Application S/W:	IMU Calibr	ation			

Computer Manufacturer:	Hewlett Packard	Model:	HP 2100
System Laboratory Use:	Inertial Systems Lab	NASA Branch:	EH6
MAIN MEMORY:			
Word Size:	<u>16 →</u> Bits		
Memory Capacity:	32KWords		
Cycle Time:	1,2 Microsecond	s	
MASS MEMORY:			
Magnetic Tape:	units at		bpi
	units at	bp i	
Hard Disk Capacity:	2,5M b	ytes	
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16	, Room1054		
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):	1 ea.	LPM	
Card Reader:		CPM	
Card Punch:		•	
CRT Terminals:		Units	
Graphic Terminals:	1 ea.	Units	
Color Graphic Terminals	:	Units	
SPECIAL H/W ARITHMETIC:	:		
Mul/Div:	Yes		
Floating Point:	Yes		
Array Processor:			
ADDITIONAL PERIPHERALS:	:		
Paper Tape Reader, Pap	er Tape Punch, Teletype		
AVAILABLE SOFTWARE:			
Operating Systems(s) De	escription: RTE II		
Compilers/Languages:	Fortran, Basic		
Application S/W:	IMU Calibration		

Computer Manufacturer:	Hewlett	Packard	Model:	HP 1000
System Laboratory Use:	Inertia	1 Components	NASA Branch:	EH6
MAIN MEMORY:				
Word Size:	16 Bits			
Memory Capacity:		Words		
Cycle Time:			ì	
MASS MEMORY:				
Magnetic Tape:		units at _		bpi
Hard Disk Capacity:		by		
Floppy Disk:				
LOCATION OF COMPUTER:				
Building 16A	, Ro	om1043		
Network Interface Type				
GENERAL PERIPHERALS:				
Line Printer(s):		90	LPM	
Card Reader:			СРМ	
CRT Terminals:			Units	
Graphic Terminals:		1	Units	
Color Graphic Terminal	•	••	Units	
SPECIAL H/W ARITHMETIC	:			
Mul/Div:	•	Yes		
Floating Point:		Yes		
Array Processor:		•		
ADDITIONAL PERIPHERALS	:		• 4	
Analog Scanner-20 (•			
AVAILABLE SOFTWARE:				
Operating Systems(s) D	escriptions	RTEM		
	· · · · · · · · ·			
Compilers/Languages:	Fortran I	Y		
Application S/W:	Gvro Test	Programs		

A-18

ckard	_ Model:	HP1000
trols Lab	_ NASA Branch	n: <u>EH6</u>
lords		
1icroseconds		
_units at _		bpi
	bpi	
by	tes	
units		
1047		
E 488		
0	LPM	
0	СРМ	
1	Units	
	Units	
	Units	
	- 10.000,	
rminal, Pape	er Tape Punch	/Reader,
D/A		
RTE4 A		
c		
· · · · · · · · · · · · · · · · · · ·		
Simulation		
	dords dicroseconds units at	NASA Branch Nords Nicroseconds units atbpibytesunits 1047 E 488 OLPM OCPM UnitsUnits Units Units Units Arminal, Paper Tape Punch D/A RTE4 A

APPENDIX B SAIL COMPUTER SYSTEMS

Computer Manufacturer:	XERO	X		Model:	560
System Laboratory Use:	MMES/SA	IL		NASA Branch:	
MAIN MEMORY:					
Hord Size:	32 B	its			
Memory Capacity:			lords		
Cycle Time:		N	11 croseconds	•	
MASS MEMORY:					
Magnetic Tape:	3		_units at _	1600	bp1
	units	at		bp i	
Hard Disk Capacity: _		· 	by	ytes	
Floppy Disk:			units		
LOCATION OF COMPUTER:					
Building 16		, Room	2046		
Network Interface Type	2:		N/A		
GENERAL PERIPHERALS:					
Line Printer(s):				LPM	
Card Reader:				CPM	
Card Punch:		N/A			
CRT Terminals:		3		Units	
Graphic Terminals:				Units	
Color Graphic Termina	ls:	1		Units	
SPECIAL H/W ARITHMETIC	:				
Mul/Div:					
Floating Point:					
Array Processor:					
ADDITIONAL PERIPHERALS	S:				
Te le type					
AVAILABLE SOFTWARE:				-	-
Operating Systems(s) [Descript	ion:			
Compilers/Languages:	Fortra	IV B	asic		
Application S/W:S	huttle M	lated E	lements Sim	ulations	

Computer Manufacturer:	MODCOMP		Model:	
System Laboratory Use:	LPS		NASA Branch:	
MAIN MEMORY:	i			
Word Size: 1	6Bits			
Memory Capacity:		lords		
Cycle Time:	N	licroseconds	r	
MASS MEMORY:				
Magnetic Tape:		_units at _		bpi
			bpi	
Hard Disk Capacity: 2			tes	
Floppy Disk:	•	units		
LOCATION OF COMPUTER:				
Building 16	, Room	19	1	
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s):		ملسا ۲۰۰۰ برساد می	LPM	
Card Reader:			CPM	
Card Punch:				
CRT Terminals:			Units	
Graphic Terminals:			Units	
Color Graphic Terminals:			Units	•
SPECIAL H/W ARITHMETIC:				
Mul/Div:				
Floating Point:				
Array Processor:				
ADDITIONAL PERIPHERALS:				
AVAILABLE SOFTWARE:				
Operating Systems(s) Des	scription: _			
Compilers/Languages:				
Application S/W:	7			
			·	

Computer Manufacturer:	MODCOMP	Model:
System Laboratory Use:	LPS	NASA Branch:
MAIN MEMORY: Word Size: 1 Memory Capacity: Cycle Time:	Words	
MASS MEMORY: Magnetic Tape:	units at _	bpi
Hard Disk Capacity: 2 Floppy Disk: -		
Building 16 Network Interface Type:		
GENERAL PERIPHERALS: Line Printer(s): Card Reader: Card Punch:	1 ea. 1 ea.	LPM CPM
CRT Terminals: Graphic Terminals: Color Graphic Terminals:		Units Units Units
SPECIAL H/W ARITHMETIC: Mul/Div:		
Awar Dunganan		
ADDITIONAL PERIPHERALS:		
AVAILABLE SOFTWARE:		
Operating Systems(s) Des	scription:	·
Compilers/Languages:		
Application S/W:		

Computer Manufacturer:	MODCOMP		Model:	·····
System Laboratory Use:	LPS		NASA Branch:	
MAIN MEMORY:				
Word Size: 10	Bits			
Memory Capacity:	W	ords		
Cycle Time:			S	
MASS MEMORY:				
Magnetic Tape: 3	ea.	units at	······································	bpi
	nits at		bpi	
Hard Disk Capacity: 2	еа	by	ytes	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16	, Room	194		
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s):			LPM	
Card Reader:			CPM	
Card Punch:				
CRT Terminals:				
Graphic Terminals:				
Color Graphic Terminals:				
SPECIAL H/W ARITHMETIC:				
Mul/Div:				
Floating Point:				
Array Processor:		·	- Charles I - Charles	
ADDITIONAL PERIPHERALS:				
AVAILABLE SOFTWARE:				
Operating Systems(s) Des	cription: _			
Compilers/Languages:		7. t 		
Application S/W:				

Computer Manufacturer:	MODCOMP		Model:	
System Laboratory Use:	LPS		NASA Branch:	
MAIN MEMORY:				
Word Size: 16	Bits			
Memory Capacity:		Words		
Cycle Time:		Microsecond	ş	
MASS MEMORY:				
Magnetic Tape:		units at		bpi
u	nits at		bpi	
Hard Disk Capacity:		b	ytes	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16	, Room	194		
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s):			LPM	
Card Reader:				
Card Punch:				
CRT Terminals:				
Graphic Terminals:			Units	
Color Graphic Terminals:				
SPECIAL H/W ARITHMETIC:				
Mul/Div:	· · · · · · · · · · · · · · · · · · ·			
Floating Point:				
Array Processor:				
ADDITIONAL PERIPHERALS:		•		
AVAILABLE SOFTWARE:				
Operating Systems(s) Des	cription:		· · · · · · · · · · · · · · · · · · ·	···
Compilers/Languages:				
			······································	· · · · · · · · · · · · · · · · · · ·
Application S/W:				

Computer Manufacturer:	MODCOMP		Model:	
System Laboratory Use:				
MAIN MEMORY:				
Word Size: 1	6 Bits			
Memory Capacity:		_Words		
Cycle Time:		_Microsecond	s	
MASS MEMORY:				
Magnetic Tape:		units at		bpi
	units at _		bpi	
Hard Disk Capacity:		b;	ytes	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16	, Roo	m 194		
Network Interface Type:			,	
GENERAL PERIPHERALS:				
Line Printer(s):			LPM	
Card Reader:			СРМ	
Card Punch:				
CRT Terminals:			Units	
Graphic Terminals:				
Color Graphic Terminals:			Units	
SPECIAL H/W ARITHMETIC:				
Mul/Div:	,			
Floating Point:				
Array Processor:				
ADDITIONAL PERIPHERALS:				
	·			
AVAILABLE SOFTWARE:				
Operating Systems(s) Des	scription:			
		· · · · · · · · · · · · · · · · · · ·		
Compilers/Languages:				
Application CAL				
Application S/W:	·			

Computer Manufacturer:	MODCOMP		Model:	
System Laboratory Use:	LPS		NASA Branch:	
MAIN MEMORY: Word Size: 16 Memory Capacity: Cycle Time:	Bits W	ords		
MASS MEMORY:				
Magnetic Tape:		units at _		bpi
u	nits at	·	bpi	
Hard Disk Capacity:	•		ytes	
Floppy Disk:		_ units		
LOCATION OF COMPUTER:				
Building 16	, Room	194		
Network Interface Type:		·		
GENERAL PERIPHERALS:				
Line Printer(s):			LPM	
Card Reader:			CPM	
Card Punch:				
CRT Terminals:			Units	
Graphic Terminals:			Units	
Color Graphic Terminals:			Units	,
SPECIAL H/W ARITHMETIC:				
Mul/Div:		- 1 'L I		
Floating Point:		~~~·		
Array Processor:				
ADDITIONAL PERIPHERALS:				
				
AVAILAGLE SOFTWARE:				
	crintion		,	
Operating Systems(s) Des	- iperon.			
Compilers/Languages:				
Application S/W:				

Computer Manufacturer:	MODCOMP	Model:	
System Laboratory Use:	LPS	NASA Branch:	
MAIN MEMORY:			
Word Size:16	5Bits		
Memory Capacity:	Words		
Cycle Time:	···	ls	
MASS MEMORY:			
Magnetic Tape:	units at	bpi	
u	nits at	bpi	
Hard Disk Capacity:	b.	ytes	
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16	, Room194		
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):		LPM	
Card Reader:	·	CPM	
Card Punch:			
CRT Terminals:		Units	
Graphic Terminals:		Units	
Color Graphic Terminals:		Units	
SPECIAL H/W ARITHMETIC:			
Mul/Div:			
Floating Point:			
Array Processor:			
ADDITIONAL PERIPHERALS:			
AVAILABLE SOFTWARE:			
Operating Systems(s) Des	cription:		
Compilers/Languages:			
Application S/W:			

Computer Manufacturer: Data Genera	1	Model:	NOVA 840
System Laboratory Use: SATS			
MAIN MEMORY:			
Word Size: 16 Bits			
Memory Capacity:Wo	ords		
Cycle Time: M	icroseconds		·
MASS MEMORY:			
Magnetic Tape: 2 ea.	units at _		bpi
units at		bpi	
Hard Disk Capacity:	by	tes	
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16 Room	194		
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):	-	LPM	
Card Reader:		CPM	
Card Punch:			
CRT Terminals:		Units	
Graphic Terminals:		Units	
Color Graphic Terminals:	···	Units	
SPECIAL H/W ARITHMETIC:			
Mul/Div:	· · · · · · · · · · · · · · · · · · ·		
Floating Point:			
Array Processor:		- 	
ADDITIONAL PERIPHERALS:			
			
			
AVAILABLE SOFTWARE:			
Operating Systems(s) Description:			
Compilers/Languages:	·		
Application S/W:			

Computer Manufacturer:	Data General	Model:	Eclipse C350
System Laboratory Use: SATS			
MAIN MEMORY:			
Word Size: 16	Bits		
Memory Capacity:	Words		
Cycle Time:	Microseco	nds	
MASS MEMORY:			
Magnetic Tape: 2	ea. units a	t	bpi
	nits at	bpi	
Hard Disk Capacity:	···	bytes	
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16	, Room19	4	
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):		LPM	
Card Reader:		CPM	
Card Punch:			
CRT Terminals:		Units	
Graphic Terminals:			
Color Graphic Terminals:			
SPECIAL H/W ARITHMETIC:			
Mul/Div:			
Floating Point:			
Array Processor:			
ADDITIONAL PERIPHERALS:			
AVAILABLE SOFTWARE:			
Operating Systems(s) Des	cription:		
Compilers/Languages:			
Application S/W:			

OF POOR QUALITY

Computer Manufacturer: _SEL		Model:	SEL 32/55
System Laboratory Use: PAT	5	NASA Branch:	
MAIN MEMORY:			
Word Size: 32 B	its	•	
· · · · · · · · · · · · · · · · · · ·	Words		
Cycle Time: 0,6	Microseconds		
MASS_MEMORY:			
Magnetic Tape: 2 ea. 9T	75IPS units at	800/1600	bpi
units	at	_bpi	
Hard Disk Capacity:	300 M byt	tes	
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16	, Room <u>194</u>		
Network Interface Type:		·	
GENERAL PERIPHERALS:			
Line Printer(s): 1 ea.	900 L	.PM	
Card Reader: 1 ea.		CPM	
Card Punch:			
CRT Terminals: 3 ea.		Jnits	
Graphic Terminals:		Jnits	
Color Graphic Terminals:	(Jnits	
SPECIAL H/W ARITHMETIC:			
Mul/Div: Firmwa	re		
Floating Point: Firmwa	re		
Array Processor:			
ADDITIONAL PERIPHERALS:			
AVAILABLE SOFTWARE:	·		
Operating Systems(s) Descript	ion: <u>SEL Real T</u>	ime Monitor	
Compilers/Languages: Fortra)		
Application S/W:			

Computer Manufacturer:	SEL		Model:	SEL 32/55
System Laboratory Use:	VTS		NASA Branch:	
MAIN MEMORY:		•		
Word Stze:	32 Bits			
Memory Capacity:		ords		
Cycle Time:			5	
MASS MEMORY:				
Magnetic Tape: 3	ea. 9T 751PS	units at _	800/1600	bp1
	units at	_		
Hard Disk Capacity:				
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16	, Room	287		
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s):	l ea.	900	LPM	
Card Reader:	1 ea	300	CPM	
Card Punch:				
CRT Terminals:			Units	
Graphic Terminals:	2 ea		Units	
Color Graphic Terminals	:		Units	
SPECIAL H/W ARITHMETIC:	:			
Mul/Div:	Firmware			
Floating Point:	Firmware			
Array Processor:	No		خور الكام المراجعين	
ADDITIONAL PERIPHERALS:				
1 ea. model 43 Telety	уре			
	-			
AVAILABLE SOFTWARE:				
Operating Systems(s) De	escription:	SEL Real T	ime Monitor 7.0	
Compilers/Languages: 1	Fortran IV			
	D. A 0			
Application S/W:	vata Recording	and Displ	ay Programs	

Computer Manufacturer:	SEL		Model:	SEL 32/55
System Laboratory Use:	QLS		NASA Branch:	
MAIN MEMORY:	,	, ,		
Word Size: 3	2 Bits			
Memory Capacity: 1		Words		
Cycle Time: 0		-	S	
MASS MEMORY:				
Magnetic Tape: 2 ea	. 9T 751PS	units at	800/1600	bpi
2 ea. 7T 75IPS u	units at	556/800	bpi	
Hard Disk Capacity:		300M b	ytes	
Floppy Disk:				
LOCATION OF COMPUTER:				
Building 16	, Room	n <u>286</u>		
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s): 1	ea.	900	LPM	
Card Reader: 1	ea.	100 0	CPM	
Card Punch:				
CRT Terminals: 2			Units	
Graphic Terminals:			Units	
Color Graphic Terminals:			Units	
SPECIAL H/W ARITHMETIC:				
Mul/Div:	Firmware			
Floating Point:				
Array Processor:	No			
ADDITIONAL PERIPHERALS:				
1 ea. Paper Tape Read	er, 1 ea. M	odel 43 Tele	type	
	w twist to the same			
AVAILABLE SOFTWARE:			-	
Operating Systems(s) Des	scription:	SEL Real T	ime Operating S	ystem
Compilers/Languages: F	ortran			
	*			
• • • • • • • • • • • • • • • • • • • •	ata Reducti	on, Logic ca	rd wire list pr	ograms, Data Base
Management				

Computer Manufacturer:	Digital Scientific	Model:	META 4
System Laboratory Use:	AVL	NASA Branch:	
MAIN MEMORY: Word Size: 1 Memory Capacity: 4			
Cycle Time: 0	0.5 Microseconds		
MASS MEMORY:			
	ea. units at		bpi
	units at		
Hard Disk Capacity: 1		es	
Floppy Disk:	<u>-</u> units		
LOCATION OF COMPUTER:			
Building 16	, Room <u>286</u>		
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):1	ea. L	PM	
Card Reader:1	ea. C	PM	
Card Punch:1	ea.		
CRT Terminals:	U	nits	
Graphic Terminals:	<u></u> U	nits	
Color Graphic Terminals	: U	Inits	
SPECIAL H/W ARITHMETIC:			
Mul/Div:			
Floating Point:			
Array Processor:			
ADDITIONAL PERIPHERALS:			
Communications Control	ller		
			
AVAILABLE SOFTWARE:			
Operating Systems(s) De	scription: <u>Unified Test</u>	t Equipment (U	TE) Language
Compilers/Languages: _			
Application S/W:S	Shuttle Test Articles Simu	lations	

Computer Manufacturer:	SEL		Model:	SEL 32/55U
System Laboratory Use:	VDS (VI)		NASA Branch:	EF3
MAIN MEMORY: Word Size: 3	2 Bits	1	•	
	4K Wor	rds		
Cycle Time: 0			3	
MASS MEMORY:				
Magnetic Tape: 1 ea	. 9T 75IPS U	inits at _	800/1600	bp1
	inits at	·	bpi	
Hard Disk Capacity:	10M	by	/tes	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16	, Room _	134		
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s): 1	ea. Shared	900	LPM	
Card Reader: 1	ea.	1000	СРМ	
Card Punch:				
CRT Terminals: 2	ea.		Units	
Graphic Terminals:			Units .	
Color Graphic Terminals:			Units	
SPECIAL H/W ARITHMETIC:				
Mul/Div:	Firmware)			
Floating Point:				
Array Processor: Y	es - AD10			
ADDITIONAL PERIPHERALS:				
8K of 4-way Shared Me	mory			
AVAILABLE SOFTWARE:				
Operating Systems(s) Des	cription: _S	EL Real T	ime Moritor 6.0	
Compilers/Languages: F	ortran IV			
		(
Application S/W:S	imulation of S	nuttle Ae	rodynamics	

Computer Manufacturer:	SEL		Model:	SEL 32/55U
System Laboratory Use:		(V2)	NASA Branch:	
MAIN MEMORY:			,	
	32 Bits			
الإدائد المساكنة المداجع بهيها	40K	Words		
Cycle Time:		_no. co Microsecond:	S	
		••	_	
MASS MEMORY: Magnetic Tape: 1 e	a 9T 751PS	unite at	80071600	hni
- ,				pp1
Hard Disk Capacity:	10M	b	vtes	
Floppy Disk:			,	
LOCATION OF COMPUTER:	0	n 134		
Building 16		134		
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s):				
Card Reader:	l ea.	1000	CPM	
Card Punch:				
CRT Terminals:			Units	
Graphic Terminals:	• • • • • • • • • • • • • • • • • • •		Units	
Color Graphic Terminals	•	·	Units	
SPECIAL H/W ARITHMETIC:			;	
Mu1/Div:(Firmware)			
Floating Point:				
Array Processor: N	0			
ADDITIONAL PERIPHERALS:				
	<u>نم قد واسی هی با سیاسی که بال به اس</u>	أسالها المخبية بها المستطالة		
AVAILABLE SOFTWARE:				
	ecrintian	SEL Real	Time Monitor 6.	0
Operating Systems(s) De	ser theron:			
Compilers/Languages:	Fortran IV			
oumpriser sy canguages.				·
Application S/W:			ensors and Navig	

Computer Manufacturer:	SEL		Model:	SEL 32/55U
System Laboratory Use:	VDS	(V3)	NASA Branch:	EF3
MAIN MEMORY:	. — — -			
Word Size:	32 Bits			
		Words		
		_ Microseconds	5	
MASS MEMORY:				
Magnetic Tape: 1 ea.	9T 75IPS	units at _	800/1600	bpi
	units at		bpi	
Hard Disk Capacity:		M by		
		units	•	
LOCATION OF COMPUTER:				
Building 16	Room	n 134	•	
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s):	1 ea. shared	900	LPM	
Card Reader:		1000		
Card Punch:		مجبور شدر الإنجاب	,	
CRT Terminals:	2 ea.		Units	
Graphic Terminals:			Units	
Color Graphic Terminals	s:		Units	
SPECIAL H/W ARITHMETIC	•		•	
	Firmware			
Floating Point:				
-	No			
ADDITIONAL PERIPHERALS	:			
HODITIONNE I ENTITIENNES	•			
AVAILABLE SOFTWARE:		, <u>, , , , , , , , , , , , , , , , , , </u>		
Operating Systems(s) De	escription.	SEL Real	Time Monitor 6.	0
operating of seems(s) of	Court perons			
Compilers/Languages:	Fortran IV			
Application S/W:	Simulation o	f Shuttle Fl	light Dynamics	
				

Computer Manufacturer:	SEL		Model:	SEL 32/55U	
System Laboratory Use:	VDS	(V4)	NASA Branch:	EF3	
MAIN MEMORY:					
	32 Bits				
Memory Capacity:	48K Wor	ds			
	0.6 Mic	roseconds			
MASS MEMORY:					
Magnetic Tape: 9T	75IPS 1 ea. u	nits at 🐫	800/1600	bpi	
	units at		_bpi		
Hard Disk Capacity:					
Floppy Disk:	.	units			
LOCATION OF COMPUTER:					
Building 16	Room	134			
Network Interface Type:					
GENERAL PERIPHERALS:					
Line Printer(s):	1 ea. shared	900 L	_PM		
Card Reader:	l ea.	200 (CPM		
Card Punch:					
CRT Terminals:	1	(Jnits		
Graphic Terminals:			Jnits		
Color Graphic Terminals		l	Jnits		•
SPECIAL H/W ARITHMETIC:					
Mul/Div:	Firmware				
Floating Point:					
Array Processor:	No		-		
ADDITIONAL PERIPHERALS:	:				
					······
AVAILABLE SOFTWARE:					
Operating Systems(s) De	escription:	SEL Real T	ime Monitor 6.	0	
Compilers/Languages:	Fortran				
Application S/W:	Simulation of IN	M. Propul	sive Forces and	Moments for	
Application 3/m	C. C	, 17 Opul	offe forces an	- 100001103 0	- Jiid CC 16

Computer Manufacturer:	SEL	Mode	1: <u>SEL 32/7</u>	25
System Laboratory Use:	VDS	(R1) NASA	Branch: EF3	
MAIN MEMORY:				
	2 Bits			
Memory Capacity: 4	8K Words	i		
Cycle Time: 0		seconds		
MASS MEMORY:				
Magnetic Tape: 1 ea	. 9T 75IPS uni	ts at800/1	.600 bpi	
Hard Disk Capacity:	10M	bytes		
Floppy Disk:		iits		
LOCATION OF COMPUTER:				
Building 16	Room	134	_	
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s): 1	ea.	900 LPM		
Card Reader: 1	ea.	1000 CPM		
Card Punch: 1	ea.	· · · · · · · · · · · · · · · · · · ·		
CRT Terminals:1		Units		
Graphic Terminals:		Units		
Color Graphic Terminals:		Units		
SPECIAL H/W ARITHMETIC:				
Mul/Div: F	irmware			
Floating Point:				
Array Processor: Y	es - AD10			
ADDITIONAL PERIPHERALS:				
8K Memory Shared with	V2			
AVAILABLE SOFTWARE:				
Operating Systems(s) Des	scription: SE	L Real Time Mor	itor 6.0	
	· · · · · · · · · · · · · · · · · · ·			
Compilers/Languages: F	ortran IV			
				
Application S/W: S	huttle RMS Simul	ations		

Computer Manufactur	rer: S	<u>L</u>		Model:	SEL 32/55
System Laboratory	Jse: V	DS/SRS	(D1)	NASA Branch:	EF3
MAIN MEMORY:					
Word Size:	32	Bits			
Memory Capacity:	48K	h	lords		
Cycle lime:	0.6	N	licrosecond	s	
MASS MEMORY:					
Magnetic Tape:	3 ea. 97	75IPS	_units at _	800/1600	bpi
	unit	s at	**************************************	bpi	
Hard Disk Capacity	·	10M	b <u>y</u>	ytes	
Floppy Disk:			_ units		
LOCATION OF COMPUTE	R:				
Building 1	6	, Room	134		
Network Interface					
GENERAL PERIPHERALS	S :				
Line Printer(s):	-	•	900	LPM	
Card Reader:	1 ea.	•	1000	СРМ	
Card Punch:					
CRT Terminals:				Units	
Graphic Terminals:				Units	
Color Graphic Term	inals: _			Units	•
SPECIAL H/W ARITHM	TIC:				
Mul/Div:	Firmw	vare			
Floating Point:					
Array Processor:	No		~~		
ADDITIONAL PERIPHE	RALS:				
	· · · · · · · · · · · · · · · · · · ·				
AVAILABLE SOFTWARE					
Operating Systems(ption:	SEL Real T	ime Monitor 6.0	
Compilers/Languages	: Fortr	an IV			
Application S/W:	Real	Time Data	a Recording		

Computer Manufacturer:	Raytheon		Model:	R704
System Laboratory Use:	VDS/SIS		NASA Branch:	EF3
MAIN MEMORY:				
	16 Bits			
Memory Capacity:	16K	_Words		
Cycle Time:	1.0	_Microseconds	S	
MASS MEMORY:				
Magnetic Tape:	l ea.	units at _		bpi
	units at _		bpi	
Hard Disk Capacity:	31	<u>1</u> by	ytes	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16	, Roo	m 1055		
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s):	1 ea.	900	LPM	
Card Reader:	1 ea.	300	CPM	
Card Punch:				
CRT Terminals:	1 ea.		Units	
Graphic Terminals:		•	Units	
Color Graphic Terminals	s:		Units	
SPECIAL H/W ARITHMETIC	•			
Mul/Div:	No			
Floating Point:	No			
Array Processor:	No		and the same	
ADDITIONAL PERIPHERALS:	•			
1 ea. ASR35 Teletype				
AVAILABLE SOFTWARE:				
Operating Systems(s) De	escription:			
Compilers/Languages:				
				
Application S/W:				

Computer Manufacturer:	SEL	Model:	SEL 32/55
System Laboratory Use:	ESG 1-EVD (E1)	_ NASA Branch:	EF3
MAIN MEMORY:	•		
Word Size: 32	2Bits		
Memory Capacity:	Words		
Cycle Time: 0	.6 Microseconds	i	
MASS MEMORY:			
Magnetic Tape: <u>lea.</u>	9T 75IPS units at	800/1600	bpi
u	nits at	bpi	
Hard Disk Capacity:	10M by	rtes e	
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16	, Room134		
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):	900	LPM	
Card Reader: 1		CPM	
Card Punch:			
CRT Terminals: 1	ea.	Units	
Graphic Terminals:		Units	
Color Graphic Terminals:		Units	
SPECIAL H/W ARITHMETIC:			
Mul/Div: F	irmware		
Floating Point:		*	
Array Processor: No)	1	
ADDITIONAL PERIPHERALS:			
General Electric Visua	l Spacecraft Simulator		
AVAILABLE SOFTWARE:		·· - · ·	
Operating Systems(s) Des	cription: SEL Real T	ime Monitor 6.0	
Compilers/Languages: Fo	ortran IV		
			
Application S/W: So	cene Generation		

Computer Manufacturer: DEC	·	Model:	PDP11
System Laboratory Use: Pic	ture-EVD (2)	NASA Branch:	EF3
MAIN MEMORY: Word Size: 16 Memory Capacity: Cycle Time:	Words	· S	
MASS MEMORY:			
Magnetic Tape: 1 ea.	units at		bpi
units	at		
Hard Disk Capacity:		rtes .	
Floppy Disk:	units		
LOCATION OF COMPUTER:			
Building 16	, Room134		
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):		LPM	
Card Reader:		CPM	
Card Punch:			
CRT Terminals:		Units	
Graphic Terminals: 1 ea.		Units	
Color Graphic Terminals:		Units	
SPECIAL H/W ARITHMETIC:			
Mul/Div:			
Floating Point:		4-2-4-4-4-	
Array Processor:			
ADDITIONAL PERIPHERALS: Necwriter, Electronic Table	t		
AVAILABLE SOFTWARE:			
Operating Systems(s) Descrip	tion:	· · · · · · · · · · · · · · · · · · ·	
Compilanc / Anguagas - Fouture			
Compilers/Languages: Fortra	[]		
Application S/W:Graphi			
- Grapul			

Computer Manufacturer:	DEC	Model:	PDP11/35
System Laboratory Use:	ESG2-EVD (3)	NASA Branch:	EF3
MAIN MEMORY:			
Word Size: 1	6 Bits		
Memory Capacity:3	2K Words		
Cycle Time:	Microseconds		
MASS MEMORY:			
Magnetic Tape: 1	ea. units at		bpi
	units at	_bpi	
	2M byte		
Floppy Disk:	units		
LOCATION OF COMPUTER:		·	
Building 16	, Room134		
Network Interface Type:			
GENERAL PERIPHERALS:			
Line Printer(s):	<u></u> LF	PM .	
Card Reader:	CF	ΡM	
Card Punch:	**		
CRT Terminals:	Ur	nits	
Graphic Terminals:	U	nits	
Color Graphic Terminals:	: Ur	nits	
SPECIAL H/W ARITHMETIC:			
Mul/Div:			
Floating Point:			
Array Processor:			
ADDITIONAL PERIPHERALS:			
	therland Scene Generator		
AVAILABLE SOFTWARE:			
Operating Systems(s) Des	scription:	·	
Compilers/Languages: F	ortran		
			
Application S/W:S	cene Generation		

Computer Manufacturer: DEC	Model: PDP11	/4 0
System Laboratory Use: ESG2-EVD (4)	NASA Branch: <u>EF3</u>	
MAIN MEMORY: Word Size: 16 Bits Memory Capacity: 32K Words Cycle Time: Micro		
MASS MEMORY:		
Magnetic Tape: 1 ea. uni	ts atbpi	
units at	bpi	
Hard Disk Capacity: 4M	bytes	
Floppy Disk:un	nits	
LOCATION OF COMPUTER:		
Building 16 Room		
Network Interface Type:		
GENERAL PERIPHERALS:		
Line Printer(s): 900	LPM	
Card Reader:	CPM	
Card Punch:		
CRT Terminals:	Units	
Graphic Terminals:	Units	
Color Graphic Terminals:	Units	
SPECIAL H/W ARITHMETIC:		
Mul/Div:Floating Point:		
Array Processor:		
ADDITIONAL PERIPHERALS:	der til gradelitet og flader i sensker	
Decwriter		
AVAILABLE SOFTWARE:		
Compilers/Languages: Fortran		
compiler sycanguages: Fortran		~
Application S/W: Scene Generation	on	
		

Computer Manufacturer:	DEC		Model:	PDP11/45
System Laboratory Use:	ESG2-EVD (5)	NASA Branch:	EF3
	16 Bits 48K Wo			
-			bo t	bpi
Hard Disk Capacity:		by1		
LOCATION OF COMPUTER: Building 16 Network Interface Type:		134	**************************************	
GENERAL PERIPHERALS: Line Printer(s): Card Reader:			.PM	
Card Punch: CRT Terminals: Graphic Terminals:			Jnits Jnits	
Color Graphic Terminals SPECIAL H/W ARITHMETIC:	:		Jnits	
Mul/Div: Floating Point:			-	
ADDITIONAL PER!PHERALS: Decwriter				
AVAILABLE SOFTWARE: Operating Systems(s) De	scription: _			
Compilers/Languages: _F	Fortran			
Application S/W:S	Scene Generatio	on Collisio	n Avoidance De	tection

Computer Manufacturer:	SEL		Model:	SEL 32/55
System Laboratory Use:	SDL	(M1)	NASA Branch:	EF3
MAIN MEMORY:				
Word Size:	32 Bits			
<u> </u>		Words		
Cycle Time:			S	
MASS MEMORY:		-		
Magnetic Tape: 2 ea	a. 9T 75IPS	units at	800/1600	boi
Hard Disk Capacity:			ytes	
Floppy Disk:			•	
LOCATION OF COMPUTER:		-		
Building 16	, Roo	m 295		
Network Interface Type				
GENERAL PERIPHERALS:				
Line Printer(s):	1 ea.	900	LPM	
Card Reader:		1000	CPM	
Card Punch:				
CRT Terminals:	5 ea.		Units	
Graphic Terminals:			Units	
Color Graphic Terminal	s:	, 	Units	
SPECIAL H/W ARITHMETIC				
Mul/Div:	(Firmware)			
Floating Point:				
Array Processor:	No			
ADDITIONAL PERIPHERALS	; •			
	\			
AVAILABLE SOFTWARE:				
Operating Systems(s) D	escription:	SEL Real T	ime Monitor	
Compilers/Languages:	Fortran			
				
Application S/W:			 	

Computer Manufacturer:	Raytheon		Model:	R704
System Laboratory Use:	SDL	(4)	NASA Branch:	EF3
MAIN MEMORY:				
Word Size:	16 Bits			
Memory Capacity:		Words		
Cycle Time:			5	
MASS MEMURY:				
Magnetic Tape:	2 ea.	units at _		bp1
	units at _		bpi	
			ytes	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16	, Roc	om <u>295</u>	. 	
Network Interface Type	:			·
GENERAL PERIPHERALS:				
Line Printer(s):	1 ea.		LPM	
Card Reader:	1 ea.	200	CPM	
Card Punch:				
CRT Terminals:			Units	
Graphic Terminals:			Units	
Color Graphic Terminal	s:		Units	
SPECIAL H/W ARITHMETIC	<u>2</u> :			
Mul/Div:		•		
Floating Point:	-	• 		
Array Processor:	·	•		
ADDITIONAL PERIPHERALS	<u>5</u> :			
1 ea. Teletype			· percent	
AMAYINDI E COSTUADE				
AVAILABLE SOFTWARE:	locamintian:		·	
Operating Systems(s) [escription:			
Compilers/Languages:				
Application S/W:				, , , , , , , , , , , , , , , , , , ,

Computer Manufacturer:	MODCOMP		Model:	Classic
System Laboratory Use:				
MAIN MEMORY:			•	
Word Size:	6 Bits			
Memory Capacity:	Wo	ords		
Cycle Time:			•	
MASS MEMORY:				
Magnetic Tape: 2	ea.	units at _		bpi
	units at		bpi	
Hard Disk Capacity: 1			tes	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16	, Room _	194		
Network Interface Type:	-			
GENERAL PERIPHERALS:				
Line Printer(s):1	ea.		LPM	
Card Reader:1	ea.	300	CPM	
Card Punch:				
CRT Terminals: 1			Units	
Graphic Terminals:			Units	
Color Graphic Terminals			Units	
SPECIAL H/W ARITHMETIC:				
Mu1/Div:				
Floating Point:				
Array Processor:				
ADDITIONAL PERIPHERALS:				
Silent 700 Terminal/P	rinter			
		-		
AVAILABLE SOFTWARE:				
Operating Systems(s) De	scription: _			
Compilers/Languages:				
	_	_		·····
Application S/W: N	on-Avionics S	imulations		

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Computer Manufacturer:	SEL		Model:	SEL 32/55U
System Laboratory Use:	FDS	(F1)	NASA Branch:	EF3
MAIN MEMORY:				
Word Size:	32 Bits			
Memory Capacity:		Words		
Cycle Time:			S	
MASS MEMORY:				
Magnetic Tape: 1 ea	a, 9T 751PS	units at _	800/1600	bpi
	units at		bpi	
Hard Disk Capacity: _	10M	b;	ytes	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building 16	, Roof	m 294		
Network Interface Type				
GENERAL PERIPHERALS:				
Line Printer(s):	1 ea. shared	900	LPM	
Card Reader:				
Card Punch:	=			
CRT Terminals:			Units	
Graphic Terminals:		•	Units	
Color Graphic Terminal	s:	• ————————————————————————————————————	Units	
SPECIAL H/W ARITHMETIC	<u>`</u> :			
Mul/Div:	(Firmware)			
Floating Point:				
Array Processor:	Yes - AD10			
ADDITIONAL PERIPHERALS	:			
8K Shared Memory with	•			
8K Shared Memory with	h F2, F3, and	± F4		
AVAILABLE SOFTWARE:				
Operating Systems(s)	escription:	SEL Real	Time Monitor 6.	.0
the series of eachers (2)				
Compilers/Languages:	Fortran IV			
Application S/W:	Shuttle Aero	odynamics Sir	mulation	
		 		

Computer Manufacture	er:S	EL	Model:	SEL 32/55U
System Laboratory Us	se: F	DS (F2) NASA Branch:	EF3
MAIN MEMORY:				
	32 Bits		•	
Memory Capacity:	48K	_Words	<i>:</i>	
Cycle Time:	0.6	Microsecond	S	
MASS MEMORY:	¥			
Magnetic Tape:	1 ea. 9T 75IP	S units at	800/1600	bpi
	units at _		bpi	
Hard Disk Capacity:				
Floppy Disk:		units		
LOCATION OF COMPUTER	<u>R</u> :			
Building	, Ro	om 294		
Network Interface T	ype:	. .		
GENERAL PERIPHERALS	:			
Line Printer(s):	1 ea. shared	900	LPM	
Card Reader:	1 ea		CPM	
Card Punch:		-	•	
CRT Terminals:			Units	
Graphic Terminals:	•		Units	
Color Graphic Termi	nals:		. Units	
SPECIAL H/W ARITHME	TIC:			
Mul/Div:	(Firmware)			
Floating Point:				
Array Processor: _	(No)			
ADDITIONAL PERIPHER	ALS:			
8K Shared Memory v	with F1, F3, an	nd F4		
AVAILABLE SOFTWARE:				
Operating Systems(s) Description:	SEL Real T	ime Monitor 6.0	
Compilers/Languages	: Fortran IV			
Application S/W: _	Simulation of	Shuttle Sen	sors and Navigat	tion Aids

Computer Manufacture	r: _	SEL			Model:	SEL 32/55U
System Laboratory Us	e: _	FDS		(F3)	NASA Branch:	ĘF3
MAIN MEMORY:						
Word Size:	32	Bits				
Memory Capacity:	64K		Words			
Cycle Time:	0.6		Microsed	conds	5 ,	
MASS MEMORY:						
Magnetic Tape:	1 ea	. 9T 75IPS	units	ąt _	800/1600	bpi
	ur	its at			bpi	
Hard Disk Capacity:		100	1	_ by	rtes	
Floppy Disk:			units	.	<i>:</i>	
LOCATION OF COMPUTER	<u>:</u> :					
Building	16	, Room		294		
Network Interface Ty	pe:					
GENERAL PERIPHERALS:						
Line Printer(s):	1 ea	. Shared		900	LPM	
Card Reader:	1 ea	•			CPM	
Card Punch:						
CRT Terminals:					Units	
Graphic Terminals:					Units	
Color Graphic Termin	nals:				Units	•
SPECIAL H/W ARITHMET	IC:					
Mul/Div:	(Fir	mware)				
Floating Point:						
Array Processor:	No					
ADDITIONAL PERIPHERA	NLS:					
8K Shared Memory w	ith F	1, F2, and	F4			
						
AVAILABLE SOFTWARE:						
Operating Systems(s)	Desc	ription:	SEL Re	al T	ime Monitor 6.0	
						
Compilers/Languages:		Fortran [\	<u> </u>			
Application S/W:	Simu	lation of S	Shuttle	Flic	ht Dynamics	
White a common of the	3 11110	TAUTUII UI L	/// CC 16	<u> 9</u>	no bynamics	

Computer Manufactu	rer:	SEL		Model:	SEL 32/55U
System Laboratory				NASA Branch:	EF3
MAIN MEMORY:					
Word Size:	32	Bits			
Memory Capacity:	48K		Words		
Cycle Time:	0.6		Microsecond	S	
MASS MEMORY:					
Magnetic Tape:	1 ea	. 9T 75IPS	_ units at _	800/1600	bpi
-	u	nits at	·	bpi	
Hard Disk Capacity	:	10M	by	ytes	
Floppy Disk:			units		
LOCATION OF COMPUT	ER:				
Building	16	, Room	294		
Network Interface	Type:				
GENERAL PERIPHERAL	<u>s</u> :				
Line Printer(s):	<u>1 ea</u>	a. Shared	900	LPM	
Card Reader:	1 ea).		CPM	
Card Punch:					
CRT Terminals:	1 ea) <u>.</u>		Units	
Graphic Terminals:				Units	
Color Graphic Term	inals:	•		Units	
SPECIAL H/W ARITHM	ETIC:				
Mul/Div:	Firm	nware			
Floating Point: _				- The state of the	
Array Processor:	No				
ADDITIONAL PERIPHE	RALS:				
SK Shared Memory	with F	1, F2, and	F3		
AVAILABLE SOFTWARE	:				
Operating Systems(s) Des	cription:	SEL Real T	ime Monitor 6.0	
Compilers/Language	s: <u>F</u>	ortran IV			
					
Application S/W:	Simu	lation of 1	[MU, Propuls	ive Forces and	Moments for
Shuttle					

Computer Manufacturer:	SEL		Model:	SEL 32/75
System Laboratory Use:	FDS	(R2)	NASA Branch:	EF3
MAIN MEMORY:				
Word Size: 32	Bits			
Memory Capacity: 48K	Words			
Cycle Time: 0.6	Micros	econds		
MASS MEMORY:				
Magnetic Tape: 1 A	75IPS unit	s at	800/1600	bpi
u	nits at		_bpi	
Hard Disk Capacity:	10M	byte	es	
Floppy Disk:	uni	ts		
LOCATION OF COMPUTER:				
Building 16	, Room	294		
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s):		L!	PM	
Card Reader:			PM	
CRT Terminals:			nits	
Graphic Terminals:		U	nits	
Color Graphic Terminals:	•	Uı	nits	
SPECIAL H/W ARITHMETIC:				
Mul/Div: (Fir	rmware)			
Floating Point:				
Array Processor: No	· · · · · · · · · · · · · · · · · · ·	·····		
ADDITIONAL PERIPHERALS:				
AVAILABLE SOFTWARE:				
Operating Systems(s) Des	cription: SEL	Real Ti	me Monitor 6.0)
Compilers/Languages:	Fortran IV			
				
Application S/W: Simu	lation of Shuttle	RMS Sy	stem	

Computer Manufacture	er: SEL		Model:	SEL 32/55
System Laboratory Us	se: FDS/GRD	(02)	NASA Branch:	EF3
MAIN MEMORY:				
	32 Bits			
		Words		
Cycle Time:	0.6	Microsecond	S	
MASS MEMORY:				
Magnetic Tape:	3 ea. 9T 75I	PS units at	800/1600	bpi
	units at _		bpi	
Hard Disk Capacity:		10M by	ytes	
Floppy Disk:		units		
LOCATION OF COMPUTER	<u>?</u> :			
Building		oom 295		
Network Interface Ty				
GENERAL PERIPHERALS:	:			
Line Printer(s):	1 ea.	900	LPM	
Card Reader:	1 ea.	1000	CPM	
Card Punch:				
CRT Terminals:			Units	
Graphic Terminals:			Units	
Color Graphic Termin	nals:		Units	
SPECIAL H/W ARITHMET	TIC:			
Mul/Div:				
Floating Point:				
Array Processor:	No			
ADDITIONAL PERIPHERA	ALS:			
AVAILABLE SOFTWARE:				
Operating Systems(s)) Description:	SEL Real Ti	me Monitor 6.0	
The mains of a security	, 2000. (64.0)			
Compilers/Languages:	Fortran I	V		
Application S/W:	Real Time Da	ta Recording		

Computer Manufacturer:	Raytheon		Model:	R704
System Laboratory Use:	FDS/GSI	(3)	NASA Branch:	EF3
MAIN MEMORY:				
Word Size: 1	6 Bits			
Memory Capacity: 1	6K Wor	ds		
Cycle Time: 1	.0 Mic	roseconds		
MASS MEMORY:				
Magnetic Tape: 1	ea. u	nits at		bpi
	units at		_bpi	
Hard Disk Capacity:		3M byte	es	
Floppy Disk:		units		
LOCATION OF COMPUTER:				
Building1	6 Room	1055	-	
Network Interface Type	e:			
GENERAL PERIPHERALS:				
Line Printer(s):1	ea.	L	PM	
Card Reader: 1			PM	
Card Punch:				
CRT Terminals: 1	ea.	Uı	nits	
Graphic Terminals:		Ui	nits	
Color Graphic Termina	ls:	U:	nits	•
SPECIAL H/W ARITHMETIC	<u>c</u> :			
Mul/Div: N	0			
Floating Point: N	0		<u>-</u>	
Array Processor: N	0			
ADDITIONAL PERIPHERALS	<u>S</u> :			
AVAILABLE SOFTWARE:				
Operating Systems(s) [Description:			
Compilers/Languages:				
Application S/W:				

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Computer Manufactur	er: _	SEL			Model:	SEL 32/55U
System Laboratory U	se:	SES	(5	(1)	NASA Branch:	EF3
MAIN MEMORY:						
Word Size:	32	Bits				
Memory Capacity: _	4 8K		_Words			
Cycle Time:	0.6		Microseco	nds		
MASS MEMORY:						
Magnetic Tape:	1 ea.	9T 751PS	units a	t	800/1600	bpi
	u	nits at			_bpi	
Hard Disk Capacity:	1 6	a. Shared	10M	byt	es	
Floppy Disk:		-	units			
LOCATION OF COMPUTE	<u>R</u> :					
Building	16	, Roo	in <u>13</u>	35		
Network Interface T	ype:					
GENERAL PERIPHERALS	:					
Line Printer(s): _	1 ea.	Shared	90	<u> 10</u> L	.PM	
Card Reader:	l ea.		100	<u>)0</u> C	SPM .	
Card Punch:						
CRT Terminals:	1 ea.			U	Inits	
Graphic Terminals:			•	U	Inits	
Color Graphic Termi	nals:			U	Inits	
SPECIAL H/W ARITHME	TIC:					
Mul/Div:	Firmw	are				
Floating Point:						
Array Processor: _	No					
ADDITIONAL PERIPHER	ALS:					
AVAILABLE SOFTWARE:						
Operating Systems(s) Des	cription:	SEL R	eal	Time Monitor	6.0
Compilers/Languages	: F	ortran IV				
,				P-1,	······································	
Application S/W:						
_						

Computer Manufacturer:		SEL			Model:	SEL 32/55U		
System Laboratory	-			(S2)	NASA Branch:			
MAIN MEMORY:								
Word Size:	32	Bits						
Memory Capacity:	48K		_Words					
Cycle Time:	0.6		_Microsec	onds	3			
MASS MEMORY:								
Magnetic Tape:	1 ea.	9T 75IPS	units	at _	800/1600	bpi		
	u	nits at _			bpi			
Hard Disk Capacity	1 e	a. Shared	10M	_ by	rtes			
Floppy Disk:	_=		units					
LOCATION OF COMPUTE	_							
Building	16	, Roo	m1	135				
Network Interface	Type:							
GENERAL PERIPHERAL	<u>}</u> :							
Line Printer(s):	1 ea.	Shared		900	LPM			
Card Reader:	1 ea.		10	000	CPM			
Card Punch:	_ 	±.	-					
CRT Terminals:	1		·~~~		Units			
Graphic Terminals:			_		Units			
Color Graphic Term	inals:				Units			
SPECIAL H/W ARITHM	TIC:							
Mul/Div:	Firm	iare						
Floating Point:	· · · · · · · · · · · · · · · · · · ·							
Array Processor:	No		····					
ADDITIONAL PERIPHE	RALS:							
AVAILABLE SOFTWARE								
Operating Systems(s) Desc	cription:	SEL Rea	1 T	ime Monitor 6.0			
Compilers/Languages	: Fc	ortran IV						
Application S/W:								

Computer Manufactur	er: _	SEL		Model: _	SEL 32/55U
System Laboratory (Jse:	SES	(\$3	NASA Branc	ch: EF3
MAIN MEMORY:		•			
Word Size:	32	Bits		,	
Memory Capacity:		_ _	lords		
Cycle Time:			1i crosecon	is	
MASS MEMORY:					
Magnetic Tape:	1 ea.	9T 75 IPS	_units at	800/1600	bpi
	uni	ts at		bpi	
Hard Disk Capacity		10M	t	oytes	
Floppy Disk:			units		
LOCATION OF COMPUTE	<u>R</u> :				
Building	16	, Room	135		
Network Interface					
GENERAL PERIPHERAL	<u>}</u> :				
Line Printer(s):	1 ea.		900	_ LPM	
Card Reader:	1 ea.	<u> </u>	300	_ CPM	
Card Punch:			 	_	
CRT Terminals:	2 ea.			_ Units	
Graphic Terminals:				_ Units	
Color Graphic Term	inals:			_ Units	
SPECIAL H/W ARITHM	TIC:				
Mul/Div:	Firmwa	re			
Floating Point:					
Array Processor:	Yes, A	010			
ADDITIONAL PERIPHER	RALS:				
	 				
AVAILABLE SOFTWARE	•				
Operating Systems(ription:	SEL Real	Time Monitor	6.0
Compilers/Language:	Fo	rtran IV			
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
Application S/W:				. <u></u>	

Computer Manufacturer: System Laboratory Use:		SEL		Model:	SEL 32/75	
		SES	(R3)	NASA Branch:	EF3	
MAIN MEMORY:						
Word Size:	32	Bits				
Memory Capacity:	64K		_Words			
Cycle Time:				s		
MASS MEMORY:						
Magnetic Tape:	1 ea.	9T 75IPS	units at	800/1600	bpi	
	ur	nits at		bpi		
Hard Disk Capacity	:	10M	b.	ytes		
Floppy Disk:		·	units			
LOCATION OF COMPUT	ER:					
Building	16	, Roo	m 135			
Network Interface			-	· · · · · · · · · · · · · · · · · · ·		
GENERAL PERIPHERAL	S:	,				
Line Printer(s):	 1 ea.		900	LPM		
Card Reader:						
			-			
CRT Terminals:				Units		
Graphic Terminals:				Units		
Color Graphic Term	inals:	·		Units		
SPECIAL H/W ARITHM	ETIC:					
Mu1/Div:	Firmw	are				
Floating Point:						
Array Processor:	No	·**				
ADDITIONAL PERIPHE	RALS:					
AVAILABLE SOFTWARE	:	-				
Operating Systems(•	cription:	SEL Real T	ime Monitor 6.0		
	= , = = = =					
Compilers/Language	s: _F	ortran IV				
Application S/W:	Remot	e Manipula	ator System S	imulation		

Computer Manufactu	rer:	SEL		Model:	SEL 32/75
System Laboratory	Use:	SES	(L1)	NASA Branch:	EF3
MAIN MEMORY:		,			
Word Size:	32	Bits			
Memory Capacity:		V	lords		
Cycle Time:	0,6	Ŋ	licrosecond	S ,	
MASS MEMORY:					
Magnetic Tape:	1 ea.	9T 75IPS	units at	800/1600	bpi
	u	nits at		bpi	
Hard Disk Capacity	:	10M	b	ytes	
Floppy Disk:			_ units		
LOCATION OF COMPUT	ER:				
Building	16	, Room	135	· · · · · · · · · · · · · · · · · · ·	
Network Interface	Type:				
GENERAL PERIPHERAL	<u>s</u> :				
Line Printer(s):	1 ea.	,	900	LPM	
Card Reader:	1 ea.		1000	CPM	
Card Punch:					
CRT Terminais:				Units	
Graphic Terminals:				Units	
Color Graphic Term	inals:	·		Units	
SPECIAL H/W ARITHM	ETIC:				
Mul/Div:	Firm	iare			
Floating Point: _					
Array Processor:	No		····		
ADDITIONAL PERIPHE	RALS:				
AVAILABLE SOFTWARE	:		-		· -
Operating Systems(•	cription:	SEL Real Ti	me Monitor	
Compilers/Language	s: Fo	ortran IV			
Application S/W:	Simul	ation of Sh	uttle Paylo	ads and Payload	Interfaces

Computer Manufactu	rer: _	SEL		Model:	SEL 32/75	
System Laboratory	Use: _	SES	(G1)	NASA Branch:		
MAIN MEMORY:						
Word Size:	32	Bits				
Memory Capacity:			_Words			
Cycle Time:	0.6		_Microsecond	S		
MASS MEMORY:						
Magnetic Tape:	9T 75	IPS	units at	800/1600	bpi	
	ur		······	bpi		
Hard Disk Capacity	:	10	<u>)</u> M b	ytes		
Floppy Disk:	~- 		units			
LOCATION OF COMPUT	ER:					
Building	16	, Roo	m 135			
Network Interface					······································	
GENERAL PERIPHERAL	<u>S</u> :					
Line Printer(s):	1 ea.		900	LPM		
Card Reader:			1000	CPM		
Card Punch:			•			
CRT Terminals:	1 ea.			Units		
Graphic Terminals:	l ea.			Units		
Color Graphic Term	inals:			Units		
SPECIAL H/W ARITHM	ETIC:					
Mul/Div:	Firmw	are				
Floating Point: _						
Array Processor:	No	مسانوات المطالبة				
ADDITIONAL PERIPHE	RALS:					
	·					
AVAILABLE SOFTWARE	•					
Operating Systems(•	ription:	SEL Real T	ime Monitor 6.0		
opermenty of secure	J	or the contr				
Carrie 2 ann 11 an	. F	ortran IV				
Compilers/Language	3 ,					

Computer Manufactu	rer:	SEL	<u> </u>		1	Model:	SEL 32/55
System Laboratory	Use:	SES		(03)	<u> </u>	ASA Branch:	EF3
MAIN MEMORY:							
Word Size:	32	1	Bits				
Memory Capacity:	64K			Words			
Cycle Time:	0.6			_ _Microsecond	İs		
MASS MEMORY:							
Magnetic Tape:	1 ea.	9T	751PS	units at		800/1600	bpi
	u	nits	at		b	pi	
Hard Disk Capacity	:		10	<u>M</u> b	ytes		
Floppy Disk:				units			
LOCATION OF COMPUT	ER:						
Building	16		_, Roo	m 135			
Network Interface	Type:		_				
GENERAL PERIPHERAL	S:						
Line Printer(s):	_	Sha	red	900	LPM		
Card Reader:					-		
Card Punch:					_		
CRT Terminals:	2 ea.				Unit	ts	
Graphic Terminals:					Unit	ts	
Color Graphic Term	inals:	*****			Unit	ts	
SPECIAL H/W ARITHM	ETIC:						
Mul/Div:		are					
Floating Point:						_	
Array Processor:	No					_	
ADDITIONAL PERIPHE	RALS:						
							
AVAILABLE SOFTWARE	•						
Operating Systems(crint	tion:	SEL Real T	ime 1	Monitor	
oparating opocing (-,	p	-1011		11170		
Compilers/Language	s: F	ortr	an IV				
Application S/W:	Data	Reco	rding				

Computer Manufactur	er:	SEL			Mod	el:	SEL 32/55
System Laboratory U	Jse:	SES		(00)	NASA	Branch:	EF3
MAIN MEMORY:							
Word Size:	32	Bits					
				ords			
Cycle Time:				icrosecond:	5		
MASS MEMORY:							
Magnetic Tape:	2 ea.	. 9T 75IP	S	units at _	800/	1600	bp1
	u	nits at		·	bp1		
Hard Disk Capacity:	300M	& 10M		by	ytes		
Floppy Disk:				_ units			
LOCATION OF COMPUTE	ER:						
Building	16	, Ro	000	135			
Network Interface 1	Type:						
GENERAL PERIPHERALS	<u>S</u> :						
Line Printer(s):	1 ea.	•		900	LPM		
Card Reader:							
Card Punch:							
CRT Terminals:					Units		
Graphic Terminals:					Units		
Color Graphic Term	inals:				Units		
SPECIAL H/W ARITHME	ETIC:						
Mul/Div:	Firm	ware					
Floating Point:							
Array Processor:	No				-		
ADDITIONAL PERIPHER	RALS:						
							and the state of t
AVAILABLE SOFTWARE	•			7			The second secon
Operating Systems(s		crintian	•	SEL Real	Time Ma	nnitor 6	n
operating systems (3 / UE3	er ipeion	•	JCL NCG!	TIME I'M	J. 1 1 0 1 0 4 1	<u>Y</u>
Compilers/Languages	s: F(ortran IV	'				
				· · · · · · · · · · · · · · · · · · ·			
Application S/W:	Data	Reductio	n				
•							

Computer Manufacturer:	XERO	X	Model:	SIGMA 5
System Laboratory Use:	SES	<u> </u>	_ NASA Branch:	EF3
MAIN MEMORY: Word Size: 32				
Memory Capacity: 65K	W	ords		
Cycle Time:	M	icroseconds		
MASS MEMORY:				
Magnetic Tape: 2 9-T	rack	units at _		bpi
1 7-Track ur	nits at		bpi	
Hard Disk Capacity:	2 ea. 3M	by	tes	
Floppy Disk:		_ units		
LOCATION OF COMPUTER:				
Building 16	, Room	135		
Network Interface Type:				
GENERAL PERIPHERALS:				
Line Printer(s): 1 ea.		i	LPM	
Card Reader: 1 ea.			CPM	
Card Punch: 1 ea.				
CRT Terminals:			Units	
Graphic Terminals:			Units	
Color Graphic Terminals:			Units	•
SPECIAL H/W ARITHMETIC:				
Mul/Div:				
Floating Point:				
ADDITIONAL PERIPHERALS:				
				
AMAZI ADI EL COSTUADE				
AVAILABLE SOFTWARE:	2_4.2			
Operating Systems(s) Desc	ription: _			
Compilers/Languages: Fo	ortran			
Tompi ici 3/ Euriguages.	. or wit			
Application S/W:				······································
				

Computer Manufacturer:	DEC	Model:	PDP 11/40
System Laboratory Use:		(-1) NASA Branch	: E <u>F3</u>
MAIN MEMORY: Word Size: 16 Memory Capacity: 32K Cycle lime:	Words	conds	
MASS MEMORY:			•
Magnetic Tape: 1 ea	•		bpi
Hard Disk Capacity:			
Floppy Disk:	units	5	
LOCATION OF COMPUTER: Building 16 Network Interface Type:	····	135	
GENERAL PERIPHERALS:			
Line Printer(s):		LPM	
Card Reader:		СРМ	
Card Punch:		w-ortha	
CRT Terminals:		Units	
Graphic Terminals:	<u> </u>	Units	
Color Graphic Terminals:	• =	Units	
SPECIAL H/W ARITHMETIC:			
Mul/Div:		**************************************	
Floating Point:			
Array Processor:			
ADDITIONAL PERIPHERALS: Decwriter			
			
AVAILABLE SOFTWARE: Operating Systems(s) Des	cription:		
Compilers/Languages: Fo	ortran		
Application S/W: Graph	nics		
	D 46		

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System Laboratory Use: SES (-6) NASA Branch: EF3 MAIN MEMORY: Word Size: 16 Bits Memory Capacity: 80K Words Cycle Time: Microseconds MASS MEMORY: Magnetic Tape: 1 ea. units at	_
Word Size: 16 Bits Memory Capacity: 80K Words Cycle Time: Microseconds MASS MEMORY: Magnetic Tape: 1 ea. units at bpi units at bpi Hard Disk Capacity: 2 ea. at 8M bytes each Floppy Disk: units LOCATION OF COMPUTER: Building 16 , Room 135 Network Interface Type: GENERAL PERIPHERALS: Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch CRT Terminals: 3 Units Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	_
Memory Capacity: 80K Words Cycle Time: Microseconds MASS MEMORY: Magnetic Tape: 1 ea. units at bpi units at bpi Hard Disk Capacity: 2 ea. at 8M bytes each Floppy Disk: units LOCATION OF COMPUTER: Building 16 , Room 135 Network Interface Type: GENERAL PERIPHERALS: Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch CRT Terminals: 3 Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Cycle Time: Microseconds MASS MEMORY: Magnetic Tape: 1 ea. units at bpi units at bpi Hard Disk Capacity: 2 ea. at 8M bytes each Floppy Disk: units LOCATION OF COMPUTER: Building 16 , Room 135 Network Interface Type: GENERAL PERIPHERALS: Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch CRT Terminals: 3 Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Cycle Time: Microseconds MASS MENORY: Magnetic Tape: 1 ea. units at bpi units at bpi Hard Disk Capacity: 2 ea. at 8M bytes each Floppy Disk: units LOCATION OF COMPUTER: Building 16 , Room 135 Network Interface Type: GENERAL PERIPHERALS: Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch: CRT Terminals: 3 Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Magnetic Tape: 1 ea. units at bpi units at bpi Hard Disk Capacity: 2 ea. at 8M bytes each Floppy Disk: units LOCATION OF COMPUTER: Building 16 , Room 135 Network Interface Type: GENERAL PERIPHERALS: Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch CRT Terminals: 3 Units Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
units atbpi Hard Disk Capacity: 2 ea. at 8Mbytes each Floppy Disk: units LOCATION OF COMPUTER: Building	
Hard Disk Capacity: 2 ea. at 8M bytes each Floppy Disk: units LOCATION OF COMPUTER: Building 16 , Room 135 Network Interface Type: GENERAL PERIPHERALS: Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch CRT Terminals: 3 Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Floppy Disk: units LOCATION OF COMPUTER: Building 16 , Room 135 Network Interface Type: GENERAL PERIPHERALS: Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch: CRT Terminals: 3 Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
LOCATION OF COMPUTER: Building 16 , Room 135 Network Interface Type: GENERAL PERIPHERALS: Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch CRT Terminals: 3 Units Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Building 16 , Room 135 Network Interface Type: GENERAL PERIPHERALS: Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch CRT Terminals: 3 Units Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Network Interface Type:	
GENERAL PERIPHERALS: Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch: CRT Terminals: 3 Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Line Printer(s): 1 ea. 900 LPM Card Reader: 1 ea. 300 CPM Card Punch: Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Card Reader: 1 ea. 300 CPM Card Punch: CRT Terminals: 3 Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Card Reader: 1 ea. 300 CPM Card Punch: CRT Terminals: 3 Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Card Punch: CRT Terminals: 3 Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
CRT Terminals: 3 Units Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
Graphic Terminals: Units Color Graphic Terminals: Units SPECIAL H/W ARITHMETIC:	
SPECIAL H/W ARITHMETIC:	
	`
Mu1/Dive	
Mul/Div:	
Floating Point:	
Array Processor: Yes 2 each AD10	
ADDITIONAL PERIPHERALS:	
Decwriter, DEC Terminal	
AVAILABLE SOFTWARE:	
Operating Systems(s) Description:	
Compilers/Languages: Fortran	
Application S/W: Host Computer for AD10 Processors	

Computer Manufactu	rer:	CDC		Model:	Cyber 74
System Laboratory	Use:	EF3/SES		NASA Branch:	EH2/EF3
MAIN MEMORY:	•				
Word Size:	60	Bits		•	
Memory Capacity:	131K		_Words		
Cycle Time:	0.1/	1.0	Microsecond	S	
MASS MEMORY:					
Magnetic Tape:	2 ea	7T 150IPS	units at	556/800	bpi
2 ea. 7T 150IPS		nits at 20	0/556/800	bpi	
Hard Disk Capacity	:	ea. 300N	1. b.	ytes	
Floppy Disk:			units		
LOCATION OF COMPUT	ER:				
Building	16	, Roo	m <u>134</u>		
Network Interface					
GENERAL PERIPHERAL	<u>s</u> :				
Line Printer(s):	1 ea	•	1200	LPM	
Card Reader:				CPM	
Card Punch:					
CRT Terminals:				Units	
Graphic Terminals:				Units	
Color Graphic Term	inals		•	Units	
SPECIAL H/W ARITHM	ETIC:				
Mul/Div:		Yes			
Floating Point: _		Yes		-	
Array Processor:		No			
ADDITIONAL PERIPHE	RALS:				
7100213014121					
AVAILABLE SOFTWARE	•				
Operating Systems(cription:			
		•			
Compilers/Language	s:	Fortran, Co	obol, Compass	(Assembly)	
Application S/W:	Spac	e Shuttle F	light Simula	tions (SSFS)	